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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/204,585 12/03/98 TREMBLAY

M SP-3288-US

EXAMINER

024251 TM02/0618
SKJERVEN MORRILL MACPHERSON LLP
25 METRO DRIVE
SUITE 700
SAN JOSE CA 95110

FILED
ART UNIT

PAPER NUMBER

2155
DATE MAILED:

06/18/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/204,585

Applicant(s)
Tremblay et al

Examiner
David Y. Eng

Art Unit
2155



— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Apr 4, 2001
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirements.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☐ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 20) ☐ Other: _____

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Claims 23-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The method as recited is merely a flow chart of an idea to operate a processor. The steps as recited in the claim combination are not actually performed by the processor such that a meaningful result is achieved.

Further, method claim 23 recites a register file as one of the method steps in the claim combination. A claim must be included in one and only one of the four statutory classes of invention. Hybrid claims are not permitted. *Ex parte Lyell*, 17 USPQ 2nd 1548 (BD. PA&I. 1990). In addition, all dependent claims must be of the same type of claim as the parent.

In response to the rejection, applicants relies on one single argument to overcome the rejection, namely "--method claims are not subject to rejection solely on the ground that they define the inherent function of the disclosed apparatus". It is not seen how that argument is applicable to the rejection. Applicants fail to provide any supporting arguments as to how each of the steps falls into that category. Applicants fail to provide any arguments as to why the method as recited is not a flow chart of an idea to operate a processor. Applicants fail to point out at where the specification discloses how each of the method steps is carry out by the apparatus. Applicants fail to further point out what meaningful result is achieved from the steps. It is not clear what the method steps as a whole try to accomplish.

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The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1 and 3-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yung.

Yung discloses a system having a plurality of processors and a global register which is shared by the processors. Each of the processors further includes its own local register which can be accessed by the associated processor only. The only difference is that Figure 2 of Yung shows a global register represented by a single rectangular box whereas the claims recite a plurality of segments. It is the position of the Examiner that whether register files are physically/logically divided/combined is not a patentable subject matter. Note that the accessibility of the register files by the functional units is the same in both inventions.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yung in view of Nishimoto.

Yung discloses claim combination set forth above. Although Yung's processor is of multiple functional units type, it is not clear whether his instructions are VLIW. VLIW instruction is well known in the art. Nishimoto shows in Figure 1 a processing system having a local register (line 64, col 5), in Figure 2 a processing system having a global register (line 35, col 7). Both systems use VLIW instructions. From the teaching of Nishimoto, it would have been obvious to a person of ordinary skill in the art to use VLIW instructions such that more control signals can be generated.

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Claims 1-29 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-22 of copending Application No. 09/204,479 in view of Yung (5,592,679).

Details of the rejection have already been set forth in the last Office action. The details are incorporated herein by reference thereto.

In the communication filed on April 4, 2001, applicants contended that Yung does not disclose a register file which is divided into a plurality of register file segments which is partitioned into a global register and a local register. The Examiner disagrees. As pointed out in the last Office action, Figure 2 of Yung clearly shows a plurality of local registers 24nd ($n=1-n$) each of which is associated with a functional unit (execution pipe) and a global register file (290). Similar to applicants' claimed apparatus, ones of the local register can only be accessed by ones of the associated execution unit and the global register is accessible by all the functional units. Applicants appears to contend that their Figure 6 shows four separate rectangular boxes labeled as global register files whereas the global register shown in Figure 2 of Yung is represented by a single rectangular box. Firstly, it appears that the four register segments (610-616) shown in Figure 6 is actually a single register file 600. The register files are logically divided and not physically divided. Secondly, it is the position of the Examiner that whether register files are physically/logically divided/combined is not a patentable subject matter. Note that the accessibility of the register files by the functional units is the same in both inventions.

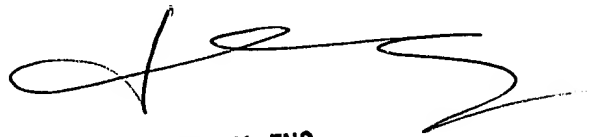
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Applicants further contended that the Examiner did not give reasons for combining the two references. The Examiner's response can be found on page 3 of the Office action mailed 1/3/2001. The Examiner's reasons for combining can be found on pages 2-3 of the Office action mailed on 7/19/2000. Note that claim 2 merely further identify what type of processor the register segments are implemented on. Claim 2 does not further recite the functional units or the register files. There is no functional relationship recited between the register files and the VLIW instructions. In other words, as far as the claims are concern, VLIW instructions and the register files are not required each other for operation. There is no reasons recited in the claims why VLIW instructions and register files as recited have to be together.

In line 3 of page 8 of the communication, applicants stated that "the claimed invention includes a single centralized register file". The fact is , the claims recite register file segments and not centralized file. Further, as stated by the Examiner above, how actually the register file is implemented is a matter of design choice and is nto a patentable subject matter.

In the same paragraph, applicants appears to contend that the Examiner can not use Yung because it is classified in class 712, subclass 23 and the definition of which does not match applicants' invention. There is no rules or laws to prevent the Examiner to use any of the references in any of the classes in the PTO classification system or any other classification systems.

Applicant fail to identify any patentable difference between the the references and the claims. Applicants' argument is not persuasive.



DAVID Y. ENG
PRIMARY EXAMINER